UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,264	06/29/2001	Alan C. Noble	05110-034001	8039

26161 7590 02/27/2007

FISH & RICHARDSON PC
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
TRUONG, CAMQUY	
ART UNIT	PAPER NUMBER
2195	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/896,264	NOBLE, ALAN C.	
	Examiner	Art Unit	
	Camquy Truong	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-29 are presented for examination.

2. It is noted that although the present application does contain line numbers in the specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the examiner and Applicant all future correspondence should include the recommended line numbering.

Claim Objections

3. Claims 9 -10 are objected to because of the following informalities:

(a). As to claim 9, line 2, replace "is based change" with " is changes " or " is based on change". Appropriate correction is required.

(b). As to claim 10, line 2, replace "is based on assumed" with " based on assumed". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The claim language in the following claims is not clearly understood:

i. As to claim 1, lines 9-11, it is not clearly understood what is going to be changed (i.e. process, performing or location or the location to perform a process is changed between client and server); Lines 12-13, it is not clearly indicated base on what information so that the process should be run at the server or client (i.e. system performance, load, quality of service, or the configuration of the servers or clients).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-26, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fields et al (U.S. Patent 6,128,655) in view of Ando (U.S. Patent 6,678,715 B1).

8. As to claim 1, Fields teaches the invention substantially as claimed including: a client-server computing process wherein at least one server responds to requests from clients by returning information to clients (col. 1, lines 23-27), the computing process comprising:

Initiating a request at a client (col. 4, lines 33-36; col. 17, lines 54-55);

Communicating the request to the server (col. 4, lines 36-42; col. 17, lines 55-57);

Responding to the request at the server by returning information to the client, wherein the information returned goes at least parsing, layout, and rendering processes before being displayed at the client (col. 3, lines 2-14; col. 4, lines 42-63; col. 17, lines 58-67).

9. Fields does not explicitly teach configuring the software carrying out at least one of the parsing and layout processes so that the location at which the process is performed can be changed between server and client at run time; making a load-balancing determination as to whether the process should be run at the server or client; and running the process at the chosen location. However, Ando teaches:

Configuring software carrying out at least one of at least one of the parsing and layout (content of the process, col. 1, lines 23-27) processes so that the location at which the process is performed can be changed between server and client at run time (Fig. 6-7; col. 4, lines 7-16; lines 38-41;col. 5, line 66- col. 6, lines 17; col. 9, line 59 – col. 10, line 4; col. 11, line 60 – col. 12, line 9; col. 12, lines 44-54; col. 41, lines 2-6);

Making a load-balancing determination as to whether the process should be run at the server or client (col. 4, lines 14-16 and 26-41; col. 12, lines 44-54); and

Running the process at the chosen location (col. 4, lines 1-3 and lines 14-21; col. 6, lines 20-22; col.10, lines 50-67).

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Fields and Ando because Ando's configuring the software carrying out at least one of the parsing and layout processes so that the location at which the process is performed can be changed between server and client at run time; making a load-balancing determination as to whether the process should be run at the server or client; and running the process at the chosen location would improve the efficiency of Field's system by making a load-balancing determination as to whether the process should be run at the server or client at run time; and running the process at the chosen location to allow the process to be switch between server and client so as to increase the flexibility of system and obtain the result of processing faster.

11. As to claim 2, Field teaches the client-server computing process is a web browsing process, and the server and clients are a browser server and a browser clients (col. 3, line 64- col. 4, lines 13).

12. As to claim 3, Field teaches the browser server communicates with a web server to retrieve information (col. 4, lines 36-42).

13. As to claim 4, Ando teaches the load balancing determination is based at least in part on a quality of service determination of the quality of service provided by one or both of the client and server (col. 3, lines, 58-61; col.4, lines 24-35; col. 12, lines 44-50).

14. As to claim 5, Ando teaches the quality of service determination is based on latency of processes carried out on one or both the client and server (col. 15, lines 11-47).

15. As to claim 6, Ando teaches the load-balancing determination is based at least in part on the load of one or both of the client and server (col. 2, lines 13-15; col. 4, lines 25-31; col. 10, lines 1-8).

16. As to claims 7-8, Ando teaches the load-balancing determination is based at least in part on the configuration of the clients and servers (col. 3, lines 59-62; col. 13, lines 1-8; col. 14, lines 18-24).

17. As to claim 9, Ando teaches the configuration on which the load-balancing determination is based is assumed to remain static after a load-balancing determination based on such configuration is made (col. 2, lines 63-67; col. 4, lines 25-41; col. 15, lines 51-55).

18. As to claims10-11, Ando teaches the configuration on which the load-balancing determination is based is assumed to remain static after a load-balancing determination based on such configuration is made (col. 2, lines 48-51).

19. As to claims 12 and 14, Ando teaches the load-balancing determination is based on both the configuration of the clients and a quality of service determination of quality of service provided by one or both of the client and server (col. 4, lines 26-37; col. 14, lines 1-55).

20. As to claims 13 and 18, it is rejected for the same reason as claim 5.

21. As to claims 15-16, Ando teaches the layout and parsing processes are configured so that the location at which both processes are run may be changed between server and clients (col. 9, line 59-col. 10, line 4).

22. As to claim 17, Ando teaches during operation further changes are made to the location at which processes are carried out based on quality of service determination (col. 4, lines 26-41).

23. As to claims 19-20, Ando teaches the processes that are carried out at either server or client comprise distributed objects that migrate between client and server (col. 3, lines 58-62).

24. As to claim 21, Ando teaches a fetching process that can be run either the client or the server based on the outcome of a load-balancing determination (col.14, lines 1-14 and lines 42-50).

25. As to claim 22, Ando teaches the rendering process is always performed at the client (col. 9, line 63-col. 10, line 4 and lines 28-31; col. 19, lines 21-23).

26. As to claim 23, Ando teaches a script evaluation and execution process that can be run at either the client or the server based on the outcome of a load balancing determination (col.12, lines 50-58).

27. As to claim 24, Ando teaches information is cached at the client, and the type information cached varied depending on which processes are running the client (col. 16, lines 57-64).

28. As to claim 25, Ando teaches the load balancing determination is based of one or more of the following: client computational resource, client load, server computational resources, server load, number of clients per server, network traffic between clients and server, and security (col. 4, lines 25-35; col. 12, lines 43-49; col. 40, lines 6-8).

29. As to claim 26, Ando teaches the load balancing determination is based on one or more of the following: latency of processing a request downstream/upstream from a

given process, and latency of processing a request of a given process (col. 15, lines 11-47)

30. As to claim 28, Ando teaches the step of making a load – balancing determination is not repeated for a period of time so that the process continues to run at the chosen location (col. 14, lines 18-24).

31. As to claim 29, Ando teaches the processes that run at the server are interconnected by a switch (col. 3, lines 58-62; col. 18, line 3-5).

32. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fields et al (U.S. Patent 6,128,655) in view of Ando (U.S. Patent 6,678,715 B1), as applied as claim 1 above, and further in view of Rossmann (U.S. Patent 6,119,155).

33. As to claim 27, Fields teaches at least the parsing and layout processes are pre-configured on the clients and server (abstract, lines 1-3-15; col. 4, line 25 – col. 5, line 3).

34. Fields and Ando do not explicitly teach so that they may be run on demand, by activating one of parsing and layout processes on one of the client and server, and deactivation the same one of the parsing and lay out processes process on the other on the other on the client and server, approximately simultaneously. However, Rossmann

teaches so that they may be run on demand, by activating one of parsing and layout processes on one of the client and server, and deactivation the same one of the parsing and lay out processes process on the other on the other on the client and server, approximately simultaneously (col. 13, lines 3-22; col. 14, lines 8-43).

35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Fields, Ando and Rossmann because Rossmann's activating one of parsing and layout processes on one of the client and server, and deactivation the same one of the parsing and lay out processes process on the other on the other on the client and server, approximately simultaneously would increase the throughput of Fields and Ando's system to minimize the air traffic and increase the response time when processing the request.

Response to the argument

36. Applicant arguments filed on 11/20/06 had been considered but they are not persuasive. In the remarks applicant argued (1) Field and Ando do not explicitly teach one or both of those processes (parsing and layout) could be run at either the server or the client, and the choice is made at run time based on a load balancing determination (2) the fact that Fields could be filed in 1998, many years after web browsers were well known, and many years after the notion of Ando was well known, without any suggestion of the invention, is persuasive of nonobviousness. (3) The examiner has not supplied any valid motivation for combining Ando and Fields. What the examiner has

done is simply parrot the advantages of making the combination that he/she has learned by reading the inventor's application. But these advantages were not known in the prior art.

37. Examiner respectfully traverses Applicant's remarks:

As to point (1) Ando teaches client issues a request for a server component and server decides whether the requested server component should be executed on the server or client based on the load balancing between client and server at run time (col. 4, lines 7-21; col. 9, lines 43-55). Ando does not teach server component is one of parsing or layout process. However, Field teaches server component is parsing or layout process For example, client make a request to server for a web page and the web page is returned to client has to go through at least a set of filters (parse, recast in to a new web page that matches the look and feel, presentation to the client) (col. 4, lines 25 – 63). Therefore, the process as parsing or layout process could be run at either client and server base on the load determining at run time.

As to point (2) in response to applicant's argument Applicant argued that there is not suggestion or motivation to combine Field and Ando, the examiner recognizes that obviousness can only be established by combining or modifying the teaching of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re fine*, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to combine the teaching of Field and Ando because Ando's configuring the software carrying out at least one of the parsing and layout processes so that the location at which the process is performed can be change between server and client at run time to obtain the result of processing faster, which improves the throughput the entire system (col. 4, lines 37-40).

As to point (3), in response to applicant's argument Applicant argued the examiner has done in simply parrot the advantages of making the combination that she learned by reading the inventor's application. The examiner respectfully submits that there is no where in specification provides the motivation that examiner suggests. Applicant fails to provide evident to support that examiner making the combination by reading the inventor' application. In addition, in response to applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such reconstruction is proper. *In re McLaughlin*, 443 F.2d 1392; 170 USPQ 209 (CCPA 1971).

38. **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

39. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (571) 272-3773. The examiner can normally be reached on 8:00Am – 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR of Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Camquy Truong

January 22, 2007

MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100